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JP Lorenzi, RA Soref - US Patent 4,877,269, 1989 - Google Patents

... high speed switching and/or modulation of optical ... at the central rib of the aforesaid

2X2 "X" switch. ... 16, the light transmitting doped semiconductor waveguide 1 ...

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... in, for example, the interferometric X-switch discussed above ... may be called a metal-oxide-semiconductor (MOS)-gate controlled DIFET lightwave modulator. ...

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A Donaldson - J. Phys. D: Appl. Phys., 1981 - iop.org

... has been demonstrated [7]. If we go back to equation (2) we can look at the possibilities for modulation in semiconductor crystals such as gallium arsenide. ...

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[InGaAs-InAlAs quantum well intersecting waveguide switch operating at 1.55 \$\mu\text{m}\$](#) - all 4 versions »

JE Zucker, GR Jones, GR Jacobovitz, B Tell, K ... - Photonics Technology Letters, IEEE, 1990 - ieeexplore.ieee.org

... quantum wells provides a large modulation of refractive ... monolithic integration with other semiconductor devices, it ... changes necessary for the X-switch geometry ...

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S Su, L Joo, J Lohari - Communications Magazine, IEEE, 1988 - ieeexplore.ieee.org

... or PCM modulation technique; to date, almost all of the digital central office ... FDB)

lasers [33-35] and cleaved-coupled-cavity (C) semiconductor laser [36 ...

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[Light Modulation with Silicon Devices](#) - all 2 versions »

A Itraco, G Greglio, M Iodice, A Cusiolo, VP ... - Silicon Photonics, 2004 - books.google.com

... optic coefficient of an indirect gap semiconductor can be ... an all-silicon waveguide hosts a X-switch, driven by a ... if the subject is not a modulator in strictly ...

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E Voges, A Neyer - Lightwave Technology, Journal of, 1987 - ieeexplore.ieee.org

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[Ti: LiNbO₃ interferometric activated X-switch for high-speed applications: IAX](#) - all 3 versions »

T Pohlmann, A Neyer, E Voges - Electronics Letters, 1988 - ieeexplore.ieee.org

... Nonlinear and chaotic dynamics of semiconductor laser devices ... NEYER, A.;

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KA Shore, MW McCall, A Asgharzadeh - Electronics Letters, 1988 - ieeexplore.ieee.org

... as a function of modulation frequency? Discussion ... and chaotic dynamics of

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B Castagnolo, M Ruzzi - Fiber and Integrated Optics, 2001 - informaworld.com

... scattering losses as the X switch, interference, and ... A new intensity GaAs electrooptic modulator realized by ... method: application to semiconductor rib waveguide ...

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G Stegeman, EM Wright - Optical and Quantum Electronics, 1996 - Springer

... coupling via evanescent field overlap, gratings, cross-phase modulation, etc ...

non-linear directional coupler, the distributed feedback gratings, the X-switch, ...

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Y Silberberg - US Patent 4,775,207, 1988 - Google Patents

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[Modal interference of X-intersecting waveguide switches at large branching angles - all 2 versions »](#)

H Feng, E Herbert Li, KT Chan - Optical and Quantum Electronics, 1986 - Springer

... their attention on III-V compound semiconductor materials [2 ... talk at zero bias, low modulation efficiency and ... input waveguide branch of the X-switch, both modes ...

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 W De Zhong, JPR Lacey, RS Tucker - Lightwave Technology, Journal of, 1996 - [ieeexplore.ieee.org](#)

... ing, and have experimentally demonstrated the X switch based on ... WID's presented here use cross-gain modulation (XGM) in semiconductor optical amplifiers ...

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 MK Chin - Lightwave Technology, Journal of, 1993 - [ieeexplore.ieee.org](#)

... The principle of a Ah- switch is the modulation of the coupling length by the ... In the case of semiconductor materials with a pin diode structure, although a ...

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... X-switch with no applied voltage, and (b) with 25 V applied ... in high speed ap- plications, such as when connecting a laser diode to an external modulator or with ...

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 RH Tsai, BJ Sheu, A Kosirzewski - Circuits and Systems for Video Technology, IEEE Transactions on ... 1997 - [ieeexplore.ieee.org](#)

... important to provide all optical modulation/switching using ... from semiconductor laser into GaAs optical switch. ... from different arms of the X-switch were coupled ...

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 J McGeehan, MC Hauer, AB Sahin, AE Willner - Optical Fiber Communication Conference and Exhibit, 2002. ... 2002 - [ieeexplore.ieee.org](#)

... life test for InGaAsP EA modulator module," in ... a different optical wavelength using a semiconductor optical amplifier ... g. ? switch port 1 h. X switch port 1 i ...

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 RH Hsueh, JL Shyr, WH Wu - 2004 - [freepatentsonline.com](#)

... Assignee: Taiwan Semiconductor Manufacturing Company ... Preferably, the X-switch 130 and the Y-switch 180 are ... is turned ON to drive a buzzer modulator circuit 248 ...

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 PR Pedersen, JL Nightingale, BE Kincaid, JS Vriel, ... - Lightwave Technology, Journal of, 1990 - [ieeexplore.ieee.org](#)

... MD Divino, and RD Sandley, "Balanced bridge modulator switch using Ti ... A Neyr, and E. Voges, "Ti: LiNbO, interferometric activated X-switch for high ...

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... favorable to very high speed switching and/or modulation of optical signals passing ...

FIGS. 1a and 16, the light transmitting doped semiconductor waveguide 1 ...

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... Typically an all-optical response is obtained by using ... field overlap, gratings, cross-phase modulation, etc ... the distributed feedback gratings, the X-switch, etc ...

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W Lukosz · US Patent 5,091,963, 1992 · Google Patents

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... examples of WID's presented here use cross-gain modulation (XGM) in semiconductor optical amplifiers (SOA's) [11], [12] ...

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... is superior to comparable semiconductor electro-optic ... The electrical-optical overlap factor, which determines the required modulation voltage, must ...

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C von Helmlert, U Krueger · US Patent 6,006,931, 1999 · Google Patents

... as auto phase modulation, cross phase modulation and four ... the light output of the semiconductor laser 26 ... frequency control 6 of the optical frequency generator ...

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Y Silberberg · US Patent 4,775,207, 1988 · Google Patents

... or lithium tantalate or from semiconductor materials such ... Electro-Optic Y-Junction Modulator/Switch", Electronics ... 3. "Experimental 4x4 Optical Switching Network ...

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... 26. An optical phase modulator comprising: (a) first and second carrier injection means formed with a semiconductor light propagating waveguide for ...

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A photonic wavelength-division switching system using tunable laser diode filters - all 5 versions »

S Suzuki, M Nishio, T Numai, M Fujiwara, M Itoh, S ... · Lightwave Technology, Journal of, 1990 · IEEE Explore IEEE.org

... a WDM switching system using semiconductor tunable wavelength ... The output optical signal from the tunable wavelength ... to an optically controlled modulator and is ...

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H Nakajima - IEICE Transactions on Electronics, 1999 - ee.psu.ac.th

 ... switch array [73]-[75] involving an SOA as a ... A low DC-drift Ti:LiNbO₃ modulator as-sured ... and I. Mito, "First 8x8 semiconductor optical matrix switches ...

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[Analysis of reflection-type optical switches with intersecting waveguides - all 5 versions »](#)

J Nayyar, Y. Suematsu, K. Shimomura - Lightwave Technology, Journal of, 1998 - IEEEexplore.ieee.org

... Therefore, the device is believed to be a good candidate to serve also as an optical external modulator. Fig. 6 shows the characteristic scattering loss versus ...

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T Puhmann, A. Neyer, E. Voges - Lightwave Technology, Journal of, 1989 - IEEEexplore.ieee.org

... 6. Low-frequency modulation characteristic of IAX switch ... 7. High-frequency optical transmission characteristic 3 ... a new interferometric ac-tivated X switch for X ...

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JE Zuckler, KL Jones, GR Jacobovitz, B Tell, K ... - Photonics Technology Letters, IEEE, 1990 - IEEEexplore.ieee.org

... wells provides a large modulation of refractive ... monolithic integration with other semiconductor devices, it ... Nakagome, "Waveguided optical switch in In- GaAs ...

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SK McHapra, WC Tait, ... - US Patent 5,298,454, 1994 - Google Patents

... a videodisc player/recorder compris- ing a semiconductor laser array ... tracks and aligns the optical head (not shown) onto a in a cut-off modulator is the electro ...

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S Su, L Joui, J Lenart - Communications Magazine, IEEE, 1995 - IEEEexplore.ieee.org

 ... PCM modulation technique; to date, almost all of ... For demultiplexing, devices such as optical modulators [30 ... cleaved-coupled-cavity (C²) semiconductor laser [36 ...

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... test for InGaAsP EA modulator module," in ... a different optical wavelength using a semiconductor optical amplifier (SOA) ... setup of the optical correlator-based ...

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... effect have been demonstrated in semiconductor structures [9 ... the lateral dimension and the optical confinement is ... direction suggests that K modulation may be ...

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Z Kalajdzic

Electrically controlled integrated optical switch - all 5 versions »

RA Soref, JP Lorenzo - US Patent 4,749,183, 1988 - Google Patents

... [45] Date of Patent: Soref et al. [54] ELECTRICALLY CONTROLLED INTEGRATED OPTICAL SWITCH ... switch which finds great utility in its ability to switch in ...

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JP Lorenzo, RA Soref. Abstract. Silicon-based optical ...

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Optically controlled integrated optical switch - all 5 versions »

RA Soref, JP Lorenzo - US Patent 4,693,547, 1987 - Google Patents

... [54] OPTICALLY CONTROLLED INTEGRATED OPTICAL SWITCH [75] Inventors: Richard A Soref, Newton Centre; Joseph P. Lorenzo, Stow, both of Mass. ... 15 the switch. ...

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VG Coppola, JL Lorenzo, EG Grisgraber, FM Mantuley - US Patent 4,574,352, 1986 - Google Patents

... A selector switch provides selection signals to the data steering interface for directing the interface to establish communication links between the scale ...

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... 55-59). "Multimode 2x2 Optical Crossbar Switch" by Elec-tronics Letters, 27th Apr. ...

Another embodiment of the invention comprises an electrooptic switch. ...

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... described. Other re-lated applications include "Electrically Controlled Inte-50 grated Optical Switch" (Richard A. Soref) Ser. No. ...

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JL Lorenzo - US Patent 5,502,312, 1996 - Google Patents

... calibration document 21 (the document to be run) is placed between the light emitter 12 and the light detector 14, and the calibrate push-button switch 22 (for ...

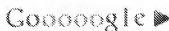
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J Lorenzo
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M Carena, JS Conway, HE Haber, JD Hobbs, M Albrow, ... - Arxiv preprint hep-ph/0010338, 2000 - icepp.su.tokyo.ac.jp
P. 1. arXiv hep-ph/0010338 v2 6 Dec 2000 FERMILAB-Conf-00/279-T SCIPP 00/37
hep-ph/0010338 October 31, 2000 Report of the Tevatron Higgs Working Group Marcela
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We report a single-crystal neutron diffraction study of the incommensurate
magnetic ordering that occurs in La₂NiO₄ below 110 K. Besides the
magnetic first and third harmonic Bragg peaks, we have also observed second ...
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Dimerization of CuGeO₃ {3} in the Spin-Peierls State - all 6 versions »
K Hirota, DE Cox, JE Lorenzo, G Shirane, JM ... - Physical Review Letters, 1994 - APS
The dimerization of the Cu ions in the spin-Peierls state of CuGeO₃ below 14 K
has been determined by neutron-diffraction measurements. In addition to
superlattice reflections with indices $h/2k/2$ (h, k, l , all odd) ...
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Parathyroid Hormone Stimulates TRANCE and Inhibits Osteoprotegerin Messenger Ribonucleic Acid ... - all 3 versions »
SK Lee, JA Lorenzo - Endocrinology, 1999 - Endocrine Soc
We studied the effects of PTH on the expression of tumor necrosis factor-related
activation-induced cytokine (TRANCE), osteoprotegerin (OPG), and receptor
activator of NF B (RANK) messenger RNA (mRNA) in cultured murine bone ...
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Paclitaxel Resistance in Non-Small-Cell Lung Cancer Associated With Beta-Tubulin Gene Mutations - all 5 versions »
M Monzo, R Roseil, JJ Sanchez, JS Lee, AO Brite, ... - Journal of Clinical Oncology, 1999 - jco.ascpubs.org
PURPOSE: The mechanisms that cause chemoresistance in non-small-cell lung
cancer (NSCLC) patients have yet to be clearly elucidated. Paclitaxel is a
tubulin-disrupting agent that binds preferentially to beta-tubulin. ...
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JM Tranquada, JE Lorenzo, DJ Buttrey, V Sachan - Physical Review B, 1995 - APS
La₂NiO₄ exhibits a cooperative ordering of dopant-induced holes and Ni
spins below a transition temperature of 110 K. There is also an ordering of
interstitial oxygens that occurs near room temperature. We present a ...
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RET alternate splicing influences the interaction of activated RET with the SH2 and PTB domains of ... - all 3 versions »
MJ Lorenzo, GD Gish, C Houghton, TJ Stonehouse, T ... - Oncogene, 1997 - nature.com
Activating germline mutations of the RET receptor tyrosine kinase are found in
the majority of cases of inherited cancer syndrome MEN 2, and inactivating
mutations in some cases of dominantly inherited Hirschsprung disease. Using ...
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Soft longitudinal modes in spin-singlet CuGeO₃ - all 5 versions »
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We present results from a neutron-scattering study of lattice anomalies
associated with the transition to the gapped spin-singlet state observed in the
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[CITATION] **The passenger-mix problem in the scheduled airlines**
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Oxygen intercalation, stage ordering, and phase separation in La₂NiO₄ {4+δ} with 0.05 < δ < 0.11 ... - all 4 versions »
JM Tranquada, Y Kong, JE Lorenzo, DJ Buttrey, DE ... - Physical Review B, 1994 - APS
We report neutron diffraction studies on a series of La₂NiO₄ δ delta single
crystals with 0.05 < δ delta < 0.11. At 300 K, all of the crystals have an
average tetragonal structure (space group I4/mmm). On cooling below 290 K, ...
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JP Lorenzo, RA Soref - Applied Physics Letters, 1987 - [link.aip.org](#)
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JP Lorenzo, RA Soref. Abstract. ... Electrooptical effects. Optics. ...

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RA Soref, JP Lorenzo - US Patent 4,748,183, 1989 - [Google Patents](#)

... Soref,NewtonCentre; Joseph P. Lorenzo, Stow, both of ... Secondly, the silicon material does not exhibit ... Pockels effect, but instead utilizes other electro-optical ...

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JP Lorenzo, RA Soref - US Patent 4,787,891, 1988 - [Google Patents](#)

... 10, 1986 by Joseph P. Lorenzo and Richard A. Soref ... These effects are electro-refraction and free carrier ... than the in-plane 2X2 electrooptical switches disclosed ...

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